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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,589	01/21/2004	Mikko Blomqvist	915-005.092	3015

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EXAMINER

D AGOSTA, STEPHEN M

ART UNIT	PAPER NUMBER
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2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/22/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/762,589	BLOMQVIST ET AL.	
	Examiner	Art Unit	
	Stephen M. D'Agosta	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9, 11, 12 and 14-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9, 11, 12 and 14-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 9, 11-12 and 14-19 have been considered but are moot in view of the new ground(s) of rejection.

1. A new rejection is attached. Claims 1-8, 10, 13 and 20 are/were cancelled.
2. After further review, while the examiner sees no novelty in the current claim dependencies as written, he believes **a more favorable outcome may occur if the applicant were to amend the claims as follows:**

> (Claim 1 or 12 or 15 or 17 or 18) + claim 11 + claim 14 + claim 19 (4 total)

This allows for several possible combinations.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-11, 12, and 15-19 rejected under 35 U.S.C. 103(a) as being unpatentable over Rydbeck US 6,922,567 and further in view of Rankin US 2003/0119530 and Hunzinger US 6,957,076 and de Verteuil US 7,035,647.

As per **claims 9, 12, 15, 17-18**, Rydbeck teaches a mobile device to provide method for a location-based function (title, abstract) comprising:

monitoring at least one property of the wireless communication networks and/or the mobile device's location (figure 1 shows the mobile device comprising a GPS

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receiver, #30 while C5, L50-62 teaches using/measuring signals from the network to determine mobile's location);

conducting the positioning to determine the position of the devices (figure 5 step #100 shows determining the location of the mobile device by either the device itself via GSP and/or by using cellular network, eg. figure 2, #44, which would inherently include BTS-ID, signal strength, triangulation, AOA, TDOA, etc.)

determining whether to activate the location based function based on at least one item of positional data of the device (Abstract teaches the determining and comparing the location of the mobile to other points of interest and, if nearby, notifying the user, which reads on activating the "function" -- eg. location compare and notification -- based on an position data)

but is silent on

determining whether to conduct a positioning of the device based on the at least one property of the wireless communication network;

wherein the at least one property comprises a signal strength of a base station of said wireless communication network, said signal strength is measured at intervals and at least information on changes in the signal strength is utilized in determining whether to conduct the positioning;

and wherein whether the device is in an area of a cell to which the location based function is connected is determined by a cell identifier and information on the base station signal strength is used for determining whether to conduct the positioning only when the device is in the area of the cell identified by said cell identifier (Cell-ID).

Rankin teaches measuring periodic BTS beacon signals and then, determines it's location and performs various operations (eg. power savings):

"...Coarse positioning techniques, such as broadcast cell identity or network triangulation (for example E-OTD), or fine techniques such as GPS, either on the mobile device or via a network operator..." (Para #20).

Hunzinger teaches a similar operation whereby, based on the user's location, the mobile device performs various operations (title, abstract, figure 4 and C2, L39-45). One skilled could use this system to send a reminder either before or after locating the user.

The examiner also notes that while location/position finding can use many well known techniques such as GPS, AOA, TDOA, cell-id, he nonetheless puts forth de Verteuil who teaches using virtually all of these as potential candidates (Abstract).

With further regard to claims 15 and 17, Rydbeck teaches a device and computer program/system (figure 2, #10, #44 and #46) while Rankin teaches that either the mobile device or the network may perform the positioning determination "...Coarse positioning techniques, such as broadcast cell identity or network triangulation (for example E-OTD), or fine techniques such as GPS, either on the mobile device or via a network operator..." (Para #20).

It would have been obvious to one skilled in the art at the time of the invention to modify Rankin, such that (monitoring) at least one property of the wireless communication network, to provide means for the mobile to determine location based on network signals rather than only from GPS signals.

It would have been obvious to one skilled in the art at the time of the invention to modify Rankin, determining whether to conduct a positioning of the device based on the at least one property of the wireless communication network AND wherein the at least one property comprises a signal strength of a base station of said wireless communication network, said signal strength is measured at intervals and at least information on changes in the signal strength is utilized in determining whether to conduct the positioning AND wherein whether the device is in an area of a cell to which the location based function is connected is determined by a cell identifier and information on the base station signal strength is used for determining whether to conduct the positioning only when the device is in the area of the cell, to provide means for determining location via many well known ways, including cell or BTS ID's.

As per **claims 10 and 19**, Rydbeck teaches claim 9, wherein on the basis of positioning determining whether or not to the location based function is determined (C1, L45-55 teaches determining position of mobile and C1, L56 to C2, L8 teaches determining if the mobile is near a predetermined item of interest, and if so, a function is executed to send a message/alert to the mobile device user).

As per **claim 11**, Rydbeck teaches claim 1, wherein said function is an act of presenting a message (C1, L45-55 teaches determining position of mobile and C1, L56 to C2, L8 teaches determining if the mobile is near a predetermined item of interest, and if so, a function is executed to send a message/alert to the mobile device user).

As per **claim 16**, Rydbeck teaches claim 18, wherein it is a wireless communication device (figure 2 shows a wireless device).

Claim 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Rydbeck, Rankin and Hunzinger and de Verteuil and further in view of Loke et al. US 6,728,528.

As per **claim 14**, Rydbeck teaches claim 12, **but is silent on** wherein strength of a signal of a base station is arranged to be used as the monitored property, and that the device comprises measurement means for measuring signal strength of at least two signal received from a base station, wherein at least information on a changing of the signal strength is arranged to be utilized in the determination means for said use in determining whether positioning of the device is conducted.

Rankin teaches using triangulation of received signals to determine location:

"...The mobile device further comprises a location detector stage which may take a number of forms, and which is coupled with a store of location data identifying locations (and optionally ancillary data) for the beacons 12, 14, 20. Coarse positioning techniques, such as broadcast cell identity or

network triangulation (for example E-OTD), or fine techniques such as GPS, either on the mobile device or via a network operator, can be used to give absolute positioning data.

The examiner notes that TDOA is also a well known position-based method which uses time differential of arrival of signals AND/OR multiple signals, which reads on "two signals received".

Loke teaches detecting and monitoring a second BTS's pilot signal strength whereby a handoff is commenced when said second BTS's signal strength is above a certain threshold:

"...Once detected, the phone 3 continues to monitor the signal strength of the neighboring pilot channel. When the signal strength of the neighboring pilot channel exceeds the predetermined threshold, the system 1 initiates the hand off from the cell C1 to the cell C2..." (C13, L34-46)

It would have been obvious to one skilled in the art at the time of the invention to modify Rankin, such that timing of a signal of a base station is arranged to be used as the monitored property, and that the device comprises measurement means for measuring signal strength of at least one signal received from a base station, wherein at least information on a changing of the signal strength is arranged to be utilized in the determination means for said use in determining whether positioning of the device is conducted, to provide means for the various ways of positioning to be used to determine location.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 571-272-7862. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

STEVE M. D'AGOSTA
PRIMARY EXAMINER
[Signature]
12-18-06